

WHAT IS CLAIMED:

1. A device for applying a product to keratinous fibers, the device comprising:

a stem having two opposite ends; and

a brush portion connected to one end portion of the stem, the one end portion of the stem having a longitudinal axis and the brush portion having a free end that is not aligned with the longitudinal axis of the one end portion of the stem,

wherein the brush portion comprises a core, at least part of the core being curved such that a line tangent to the core at any axial position along the core is not perpendicular to the longitudinal axis of the one end portion of the stem, and

wherein the brush portion further comprises bristles connected to the core, the bristles comprising ends defining an envelope surface having a varying cross-section along at least a part of its length, the envelope surface being asymmetrical about a midplane of the envelope surface, the midplane being oriented perpendicular to the core.

2. The device of claim 1, wherein the brush portion is formed from a blank comprising a blank core and blank bristles having ends defining a blank envelope surface, the blank envelope surface being asymmetrical about a midplane of the blank envelope surface oriented perpendicular to the blank core.

3. The device of claim 2, wherein an edge portion partially defining the blank envelope surface is nonrectilinear when observed in profile in a direction perpendicular to the blank core, and wherein said edge portion becomes at least partially straightened by curving at least the part of the blank core.

4. The device of claim 1, wherein the envelope surface has at least one extreme cross-section chosen from a maximum cross-section and a minimum cross-section located axially between axial ends of the envelope surface.

5. The device of claim 4, wherein the brush portion has a maximum cross-section located axially between axial ends of the envelope surface.

6. The device of claim 4, wherein the envelope surface has a minimum cross-section located axially between axial ends of the envelope surface.

7. The device of claim 4, wherein the brush portion has a maximum cross-section and a minimum cross-section located axially between axial ends of the envelope surface.

8. The device of claim 3, wherein the nonrectilinear edge portion is located in one of a first third and a last third of the length of the blank envelope surface.

9. The device of claim 3, wherein said nonrectilinear edge portion is outwardly concave.

10. The device of claim 9, wherein the nonrectilinear edge portion is located in the last third of the length of the blank envelope surface, as measured in a direction facing away from a free end of the blank.

11. The device of claim 3, wherein the nonrectilinear edge portion is outwardly convex.

12. The device of claim 11, wherein the nonrectilinear edge portion is located in the first third of the length of the blank envelope surface, as measured in a direction facing away from a free end of the blank.

13. The device of claim 3, wherein the nonrectilinear edge portion is defined at least in part by a substantially bullet-shaped part of the blank envelope surface, the bullet-shaped part comprising a free end of the blank, and wherein a cross-section of a remainder of the blank envelope surface tapers over at least a part of the length of the blank envelope surface in a direction from the bullet-shaped part toward an end of the blank opposite the free end of the blank.

14. The device of claim 3, wherein the nonrectilinear edge portion is defined by an intersection of a frustoconical-shaped zone of the blank and a frustoconical-shaped body portion of the blank, the frustoconical-shaped zone being proximate a free end of the blank and converging toward the free end of the blank, and the frustoconical-shaped body portion extending from the intersection and converging toward an end of the blank opposite the free end of the blank.

15. The device of claim 3, wherein the blank envelope surface has a fish-like shape, and wherein the nonrectilinear edge portion is defined by a zone proximate a junction between an end portion of the blank envelope surface opposite a free end of the

blank and a remainder of the blank envelope surface, the end portion forming a tail of the fish-like shape.

16. The device of claim 3, wherein the blank envelope surface has an hourglass-like shape, and wherein the nonrectilinear edge portion is defined by a reentrant angle at a junction between two truncated cone shapes forming the hourglass-like shape.

17. The device of claim 3, wherein the blank envelope surface defines a football-like shape having at least one cut-out, and wherein the nonrectilinear edge portion is one of defined by the cut-out and lies in a vicinity of an end of the cut-out.

18. The device of claim 17, wherein the cut-out is chosen from a notch and a facet.

19. The device of claim 17, wherein the nonrectilinear edge portion is deformed by curving at least the part of the blank core so as to cause at least part of the nonrectilinear edge portion to lie substantially on an axis of an edge of a remainder of the blank envelope surface adjacent the nonrectilinear edge portion.

20. The device of claim 1, wherein the brush portion is formed from a blank comprising a blank core and blank bristles having ends defining a blank envelope surface, the blank envelope surface being substantially circularly symmetrical.

21. The device of claim 1, wherein the brush portion is formed from a blank comprising a blank core and blank bristles having ends defining a blank envelope surface, the blank envelope surface being substantially axially symmetrical about a longitudinal axis of the core.

22. The device of claim 1, wherein the brush portion is formed from a blank having a blank core curved about at least one axis disposed outside the midplane of the blank.

23. The device of claim 1, wherein the core comprises a twisted wire core.

24. The device of claim 23, wherein the twisted wire core has a left-hand pitch.

25. The device of claim 23, wherein the bristles are held between wires of the twisted wire core.

26. The device of claim 25, wherein the twisted wire core has a left-hand pitch and wherein at least the part of the core is curved so as to decrease an inclination of helical turns formed by free ends of the bristles relative to the longitudinal axis of the end portion of the stem in a direction facing away from the stem.

27. The device of claim 1, wherein the bristles comprise bristles of differing lengths.

28. The device of claim 27, wherein the bristles comprise longer bristles defining the envelope surface of the brush portion and shorter bristles contained within a space defined by the envelope surface.

29. The device of claim 1, wherein the brush portion is formed from a blank comprising a blank core and blank bristles having ends defining a blank envelope surface, the blank envelope surface having at least one substantially planar facet formed thereon.

30. The device of claim 29, wherein the at least one substantially planar facet comprises three substantially planar facets and wherein the blank envelope surface has a cross-section that is substantially triangular in shape, at least over a fraction of its length.

31. The device of claim 1, wherein the core is curved about at least two axes that are not mutually parallel.

32. The device of claim 1, wherein the brush portion has a stepped cross-section over at least part of its length.

33. The device of claim 1, wherein the core has a nonuniform curvature.

34. The device of claim 33, wherein the core comprises a curved portion and a rectilinear portion, the rectilinear portion being attached to the stem.

35. The device of claim 1, further comprising a container configured to contain the product to be applied to the keratinous fibers.

36. The device of claim 35, further comprising a wiper configured to wipe excess product from the brush portion.

37. The device of claim 35, further comprising a handle member attached to an end of the stem opposite the end to which the brush portion is connected.

38. The device of claim 34, further comprising the product, wherein the container contains the product.

39. The device of claim 38, wherein the product comprises a mascara product.

40. The device of claim 1, wherein the brush portion is configured to apply product to eyelashes.

41. The device of claim 1, wherein the cross-section of the envelope surface varies in a nonmonotonic manner.

42. The device of claim 1, wherein an entire length of the core of the brush portion to which the bristles are connected is curved.

43. A method of making an applicator for applying a product to keratinous fibers, the method comprising:

providing a blank comprising a blank core and bristles connected to the blank core, the bristles comprising ends defining a blank envelope surface having a varying cross-section over at least a part of its length and being asymmetrical about a midplane of the blank envelope surface, the midplane being perpendicular to the blank core; and

curving at least a part of the blank core so as to form a brush portion comprising a core and a free end not aligned with a longitudinal axis of an end portion of a stem to which the brush portion is adapted to be connected,

wherein a line tangent to the core at any axial position along the core is not perpendicular to the longitudinal axis of the end portion of the stem when the brush portion is connected to the end portion of the stem.

44. The method of claim 43, wherein the cross-section of the blank envelope surface varies in a nonmonotonic manner.

45. The method of claim 43, wherein the blank core is a twisted wire core.

46. The method of claim 43, further comprising shaving free ends of at least some bristles to form the variable cross-section of the blank envelope surface.

47. The method of claim 43, wherein the bristles are configured to apply a product to eyelashes.

48. The method of claim 47, wherein the product comprises a mascara product.

49. The method of claim 43, wherein the blank envelope surface, when observed in profile from a direction substantially perpendicular to the blank core, has a nonrectilinear edge portion over at least a part of its length.

50. The method of claim 49, wherein the curving of the blank core comprises curving the blank core in such a manner so as to reduce a curvature of the nonrectilinear edge portion.

51. The method of claim 43, wherein the blank envelope surface is substantially circularly symmetrical.

52. The method of claim 43, wherein the blank envelope surface has a substantially bullet-like shape.

53. The method of claim 43, wherein the blank envelope surface has a substantially buoy-like shape.

54. The method of claim 43, wherein the blank envelope surface has a substantially fish-like shape.

55. The method of claim 43, wherein the blank envelope surface has a substantially hourglass-like shape.

56. The method of claim 43, wherein the blank envelope surface has a substantially football-like shape.

57. The method of claim 56, wherein the blank comprises at least one facet on the blank envelope surface.

58. The method of claim 57, further comprising forming the at least one facet prior to curving the blank core.

59. The method of claim 58, wherein the at least one facet comprises three facets.

60. The method of claim 43, wherein the curving of the blank core comprises curving the blank core about two axes that are not mutually parallel.

61. The method of claim 43, wherein the blank core comprises a twisted wire core with a left-hand pitch.

62. The method of claim 43, wherein the blank core is rectilinear.

63. The method of claim 43, wherein the curving of at least the part of the blank core comprises curving an entire length of the blank core to which the bristles are connected.